REMARKS

The specification has been amended. Claims 1, 10 and 16 have been amended in order to improve the form thereof, but these amendments do not affect the intended scope thereof. Claims 1-20 are pending in the application. In view of the foregoing amendments, and the remarks that follow, Applicants respectfully request reconsideration.

Objection to Drawings

The Office Action objected to the drawings on the ground that Figure 2 shows a memory identified by reference numeral 210, but paragraph [0012] of the specification refers to this memory not only with reference numeral 210, but also with reference numeral 224. The foregoing amendment to the specification modifies paragraph [0012] to change reference numeral 224 to 210, so that the specification now uses only reference numeral 210 to refer to the memory. This amendment merely conforms the specification to originally-filed Figure 2, as permitted by MPEP §2163.06. In light of this amendment, it is respectfully submitted that Figure 2 and the specification are now consistent, and that there is no longer any problem that would require any change to Figure 2. The original drawings are thus believed to be acceptable, and notice to that effect is respectfully requested.

Independent Claim 1

Independent Claim 1 stands rejected under 35 U.S.C. §102 as anticipated by Wang U.S. Patent No. 6,789,031. This ground of rejection is respectfully traversed, for the following reasons. The PTO specifies in MPEP §2131 that, in order for a reference to anticipate a claim under §102, the reference must teach each and every element recited in the claim. Claim 1 of the present application expressly recites:

establishing a process parameter for manufacturing a semiconductor product prior to receiving manufacturing feedback regarding the process parameter, . . . including:

calculating the process parameter based on the retrieved information.

The technique disclosed in the Wang patent is different. In particular, the Wang patent discloses a method of comparing two separate processes in order to determine whether they are statistically equivalent. The calculation in Wang starts with a parameter that is characteristic of the two selected processes, and the calculation in Wang ends with a determination that the two processes either (1) are statistically equivalent or (2) are not statistically equivalent. The calculation in Wang does not yield a process parameter that is subsequently used to carry out either of the two processes. Stated differently, the calculation in Wang uses a process parameter as an input, but does not produce a process parameter as an output.

In contrast, Claim 1 of the present application relates to a single process, rather than a comparison of two different processes. Further, Claim 1 recites calculation of a process parameter to be used in subsequently carrying out the process. Wang does not disclose anything comparable to the limitations from Claim 1 that have been quoted above. Wang thus does not disclose each and every element recited in Claim 1, and thus does not meet the requirement discussed in MPEP §2131. Claim 1 is therefore not anticipated under §102 by Wang. Accordingly, Claim 1 is believed to be allowable over Wang, and notice to that effect is respectfully requested.

Independent Claim 10

Independent Claim 10 stands rejected under 35 USC §103 as obvious in view of a proposed combination of teachings from the Wang patent and from Skidmore U.S. Patent No.

6,622,102. This ground of rejection is respectfully traversed. The PTO recognizes in MPEP §2142 that:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Applicants respectfully submit that Wang and Skidmore fail to establish a prima facia case of obviousness under §103 with respect to Claim 10, for the mutually exclusive reasons that are discussed below.

THE PROPOSED COMBINATION DOESN'T TEACH THE CLAIMED SUBJECT MATTER

The proposed combination of Wang and Skidmore does not teach the subject matter of Claim 10. The provisions of MPEP §2142 specify with respect to §103 that:

> To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest <u>all</u> the claim limitations. (Emphasis added).

The PTO considers this requirement to be important, as evidenced by the fact that this exact language appears not only in MPEP §2142, but also in other sections of the MPEP, including MPEP §706.02(j) and MPEP §2143. Applicants' Claim 10 includes a recitation of:

> determining a process parameter value to be used in manufacturing a semiconductor product prior to receiving feedback

> regarding the manufacturing, wherein the process parameter is associated with a specific technology, . . . including:
>
> calculating a mean . . .; and
>
> using the mean as the process parameter.

The Office Action asserts that these limitations from Claim 10 are met by the Wang patent. However, as discussed above in association with Claim 1, Wang does not teach or suggest subject matter comparable to these limitations from Claim 10. As to Skidmore, the Office Action does not rely on Skidmore for teachings that would meet these quoted limitations from Claim 10. Instead, the Office Action relies on Skidmore for different teachings, namely the selection of one or more part identifiers. Consequently, the proposed combination of teachings set forth in the Office Action does not include anything comparable to the limitations from Claim 10 that have been quoted above. In other words, even when the indicated teachings from Wang and Skidmore are combined, they fail to satisfy the requirement of MPEP §2142 that the combined teachings must collectively "teach or suggest all the claim limitations" (emphasis added). Therefore, for this independent reason alone, it is respectfully submitted that Claim 10 is not obvious under §103 in view of Wang and Skidmore, and notice to that effect is respectfully requested.

NONANALOGOUS ART CANNOT BE USED TO ESTABLISH OBVIOUSNESS

For the purpose of trying to establish a prima facie case of obviousness under 35 U.S.C. §103, only analogous prior art can be considered. In this regard, MPEP §2141.01(a) specifies that, for a reference to be "analogous" prior art that can be considered under §103, it must be either (1) in the field of Applicants' endeavor or (2) reasonably pertinent to the particular problem with which the inventor was concerned. The provisions of §2141.01(a) go on to explain that, although the PTO classification system carries a small amount of weight in determining what is

relevant, the similarities and differences in structure and function carry far greater weight. In this regard, §2141.01(a) discusses a specific example, and states that:

> The court also found the reference was not reasonably pertinent to the problem with which the inventor was concerned because a person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for refined petroleum by considering a reference dealing with plugging underground formation anomalies.

In the present situation, and as discussed above, the problem that Applicants faced was determining a process parameter to be used in manufacturing a product. Neither Wang nor Skidmore recognizes or discusses this particular problem. To the extent that Applicants' field of endeavor is determining a process parameter to be used in manufacturing a product, and to the extent that a person of ordinary skill in the art would not reasonably have expected to solve this problem by considering either Wang or Skidmore, it is respectfully submitted that neither Wang nor Skidmore is within Applicants' field of endeavor, and that neither is reasonably pertinent to the particular problem with which the inventors were concerned. In the words of the MPEP, Wang and Skidmore are "not reasonably pertinent to the problem with which the inventor was concerned because a person having ordinary skill in the art would not reasonably have expected to solve the problem of" determining a process parameter to be used in manufacturing a product by considering Wang and/or Skidmore. Accordingly, it is respectfully submitted that neither Wang nor Skidmore is what the PTO considers to be "analogous" prior art, and that neither can properly be used in an attempt to establish a prima facie case of obviousness under §103. Consequently, the Examiner's burden of factually supporting a prima facie case of obviousness has clearly not been met. For this reason alone, it is respectfully submitted that the pending §103 rejection of Claim 10 must be withdrawn, and notice to that effect is respectfully requested.

THE COMBINATION OF REFERENCES IS IMPROPER

There is yet another reason why Wang and Skidmore cannot be combined in the proposed manner to reject Claim 10 under §103. In this regard, MPEP §2142 provides that:

> To reach a proper determination under §103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. . . . Knowledge of applicant's disclosure must be put aside in reaching this determination, . . . impermissible hindsight must be avoided, and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

The MPEP further provides at § 2143.01 that:

> The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. . . . Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so". (Emphasis in original).

As discussed above, neither Wang nor Skidmore has any teachings relevant to determining a process parameter to be used in manufacturing a product. Consequently, even if a person skilled in the art was considering these two references, there is nothing in the prior art that would motivate such a person to modify Wang so as to introduce something that is not in either Wang

or Skidmore, namely "determining a process parameter to be used in manufacturing a semiconductor product". The present §103 rejection of Claim 10 is therefore incomplete, because it fails to demonstrate suitable motivation as required by the MPEP. In effect, the §103 rejection is based on hindsight of the present invention, rather than on motivation properly derived from what was known prior to the present invention. Accordingly, for this independent reason alone, it is respectfully submitted that Claim 10 is not rendered obvious under §103 by Wang and Skidmore, and notice to that effect is respectfully requested.

In view of the various different reasons discussed above, it is respectfully submitted that Claim 10 is not rendered obvious under §103 by Wang and Skidmore. Claim 10 is therefore believed to be allowable, and notice to that effect is respectfully requested.

Independent Claim 16

Independent Claim 16 stands rejected under 35 USC §103 as obvious in view of a proposed combination of teachings from the Wang patent and from Skidmore U.S. Patent No. 6,622,102. This ground of rejection is respectfully traversed. As discussed above, the PTO recognizes in MPEP §2142 that:

> The examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.

Applicants respectfully submit that Wang and Skidmore fail to establish a prima facia case of obviousness under §103 with respect to Claim 16, for the mutually exclusive reasons that are discussed below.

THE PROPOSED COMBINATION DOESN'T TEACH THE CLAIMED SUBJECT MATTER

The proposed combination of Wang and Skidmore does not teach the subject matter of Claim 16. The provisions of MPEP §2142 specify with respect to §103 that:

> To establish a *prima facie* case of obviousness . . . the prior art reference (or references when combined) must teach or suggest all the claim limitations. (Emphasis added).

The PTO considers this requirement to be important, as evidenced by the fact that this exact language appears not only in MPEP §2142, but also in other sections of the MPEP, including MPEP §706.02(j) and MPEP §2143. Applicants' Claim 16 recites a system that includes:

> a portion for determining a process parameter value to be used in manufacturing a semiconductor product prior to receiving feedback regarding the manufacturing, the portion of the system including: . . .
>
> a plurality of software instructions including: . . .
>
> instructions for calculating a statistical value . . .; and
>
> instructions for defining the process parameter value based on the statistical value.

The Office Action asserts that these limitations from Claim 16 are met by the Wang patent. However, as discussed above in association with Claim 1, Wang does not teach or suggest subject matter comparable to these limitations from Claim 16. As to Skidmore, the Office Action does not rely on Skidmore for teachings that would meet these quoted limitations from Claim 16. Instead, the Office Action relies on Skidmore for different teachings, namely a

database configured to store information identifying a plurality of parts. Consequently, the proposed combination of teachings set forth in the Office Action does not include anything comparable to the limitations from Claim 16 that have been quoted above. In other words, even when the indicated teachings from Wang and Skidmore are combined, they fail to satisfy the requirement of MPEP §2142 that the combined teachings must collectively "teach or suggest all the claim limitations" (emphasis added). Therefore, for this independent reason alone, it is respectfully submitted that Claim 16 is not obvious under §103 in view of Wang and Skidmore, and notice to that effect is respectfully requested.

NONANALOGOUS ART CANNOT BE USED TO ESTABLISH OBVIOUSNESS

For the purpose of trying to establish a prima facie case of obviousness under 35 U.S.C. §103, only analogous prior art can be considered. In this regard, MPEP §2141.01(a) specifies that, for a reference to be "analogous" prior art that can be considered under §103, it must be either (1) in the field of Applicants' endeavor or (2) reasonably pertinent to the particular problem with which the inventor was concerned. The provisions of §2141.01(a) go on to explain that, although the PTO classification system carries a small amount of weight in determining what is relevant, the similarities and differences in structure and function carry far greater weight. In this regard, §2141.01(a) discusses a specific example, and states that:

> The court also found the reference was not reasonably pertinent to the problem with which the inventor was concerned because a person having ordinary skill in the art would not reasonably have expected to solve the problem of dead volume in tanks for refined petroleum by considering a reference dealing with plugging underground formation anomalies.

In the present situation, and as discussed above, the problem that Applicants faced was determining a process parameter to be used in manufacturing a product. Neither Wang nor Skidmore recognizes or discusses this particular problem. To the extent that Applicants' field of endeavor is determining a process parameter to be used in manufacturing a product, and to the extent that a person of ordinary skill in the art would not reasonably have expected to solve this problem by considering either Wang or Skidmore, it is respectfully submitted that neither Wang nor Skidmore is within Applicants' field of endeavor, and that neither is reasonably pertinent to the particular problem with which the inventors were concerned. In the words of the MPEP, Wang and Skidmore are "not reasonably pertinent to the problem with which the inventor was concerned because a person having ordinary skill in the art would not reasonably have expected to solve the problem of" determining a process parameter to be used in manufacturing a product by considering Wang and/or Skidmore. Accordingly, it is respectfully submitted that neither Wang nor Skidmore is what the PTO considers to be "analogous" prior art, and that neither can properly be used in an attempt to establish a prima facie case of obviousness under §103. Consequently, the Examiner's burden of factually supporting a prima facie case of obviousness has clearly not been met. For this reason alone, it is respectfully submitted that the pending §103 rejection of Claim 16 must be withdrawn, and notice to that effect is respectfully requested.

THE COMBINATION OF REFERENCES IS IMPROPER

There is yet another reason why Wang and Skidmore cannot be combined in the proposed manner to reject Claim 16 under §103. In this regard, MPEP §2142 provides that:

> To reach a proper determination under §103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. . . . Knowledge of applicant's disclosure must be put aside in reaching this

> determination, . . . impermissible hindsight must be avoided, and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

The MPEP further provides at § 2143.01 that:

> The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. . . . Although a prior art device "may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so". (Emphasis in original).

As discussed above, neither Wang nor Skidmore has any teachings relevant to determining a process parameter to be used in manufacturing a product. Consequently, even if a person skilled in the art was considering these two references, there is nothing in the prior art that would motivate such a person to modify Wang so as to introduce something that is not in either Wang or Skidmore, namely "determining a process parameter value to be used in manufacturing a semiconductor product". The present §103 rejection of Claim 16 is therefore incomplete, because it fails to demonstrate suitable motivation as required by the MPEP. In effect, the §103 rejection is based on hindsight of the present invention, rather than on motivation properly derived from what was known prior to the present invention. Accordingly, for this independent reason alone, it is respectfully submitted that Claim 16 is not rendered obvious under §103 by Wang and Skidmore, and notice to that effect is respectfully requested.

In view of the various different reasons discussed above, it is respectfully submitted that Claim 16 is not rendered obvious under §103 by Wang and Skidmore. Claim 16 is therefore believed to be allowable, and notice to that effect is respectfully requested.

Dependent Claims

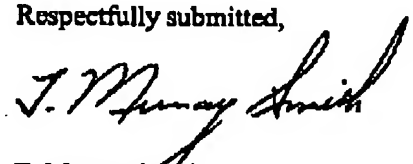
Claims 2-9, Claims 11-15, and Claims 17-20 respectively depend from Claim 1, Claim 10 and Claim 16, and are also believed to be distinct from the art of record, for example for the same reasons discussed above with respect to Claims 1, 10 and 16, respectively.

Conclusion

Based on the foregoing, it is respectfully submitted that all of the pending claims are fully allowable, and favorable reconsideration of this application is therefore respectfully requested. If the Examiner believes that examination of the present application may be advanced in any way by a telephone conference, the Examiner is invited to telephone the undersigned attorney at (972) 739-8647.

Although Applicants believe that no fee is due in association with the filing of this Response, the Commissioner is hereby authorized to charge any additional fee required by this paper, or to credit any overpayment, to Deposit Account No. 08-1394 of Haynes and Boone LLP.

Respectfully submitted,



T. Murray Smith
Registration No. 30,222
(972) 739-8647

Date: July 25, 2005

HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: (972) 739-6900
Facsimile: (214) 200-0853
File: 24061.121

Enclosures: None

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